

IN THE CLAIMS:

All claims currently pending and under consideration in the referenced application are shown below, in clean form, for clarity.

Please cancel claims 12-20, without prejudice or disclaimer.

61 1. A source structure for a local interconnect, comprising:
a semiconductor substrate;
a nitrogen-rich Ti layer having a nitrogen-rich upper portion and a titanium lower portion,
wherein the nitrogen-rich upper portion is not pure titanium nitride, the titanium lower
portion is substantially nitrogen-free, and the nitrogen-rich Ti layer overlies a portion of
the semiconductor substrate;
a refractory metal layer overlying the nitrogen-rich Ti layer; and
a silicon layer overlying the refractory metal layer.

2. The structure of claim 1, wherein the semiconductor substrate is a silicon substrate.

3. The structure of claim 2, wherein the nitrogen-rich Ti layer is disposed over active
areas in the silicon substrate.

4. The structure of claim 1, wherein the nitrogen-rich upper portion extends along an
upper surface of the nitrogen-rich Ti layer.

5. (Previously Amended) The structure of claim 1, wherein the titanium lower portion of
the nitrogen-rich Ti layer contains substantially no nitrogen.

6. The structure of claim 1, wherein a thickness of the nitrogen-rich upper portion ranges
from about 50Å to about 100Å.

7. The structure of claim 1, wherein a thickness of the nitrogen-rich Ti layer ranges from about 100Å to about 300Å.

8. The structure of claim 1, wherein the refractory metal layer comprises Co or Ti.

9. The structure of claim 8, wherein the refractory metal layer comprises Ti.

10. The structure of claim 1, wherein a thickness of the refractory metal layer ranges from about 100Å to about 300Å.

11. The structure of claim 1, wherein a thickness of the silicon layer ranges from about 400Å to about 1000Å.